

From: [Robert Neely](#)
To: [Chip_Humphrey/R10/USEPA/US@EPA](#)
Cc: [Jessica Winter](#)
Subject: Re: Fw: MNR Modeling Presentation
Date: 02/04/2011 09:53 AM

Hey Chip -- I'm not sure Jessica forwarded these comments to you yet.

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On 1/31/2011 4:45 PM, Jessica Winter wrote:

Haven't really had time for anything Portland Harbor-related this year, but the MNR modeling presentation caught my eye and I just scanned through their slides.

A few thoughts- if you want to share these with EPA, feel free:

1. slide 7 names identification and characterization of ongoing sources as a data need for predicting MNR and states that they are using the RI report source table for this. I think this needs to look at future predicted sources and I'm not sure what type of data the RI would have on this, but I assume all their data is on past releases. We need to look at what input concentrations are likely to be given that source control may reduce or eliminate some ongoing sources. The reason I think this is important is that on the Duwamish, they used the model to say "long term, even if we dredge the whole river and fill with clean material, there will be recontamination to x ppb from y and z sources, therefore, cleaning up below x ppb is a waste of effort and we should use MNR for areas under x ppb." So if that's the argument, we want to know that x is an accurate estimate of the concentration, and including historic or current discharges that won't be relevant in the future will bias it high. Slides 70 & 73 say that other loading assumptions may be modeled. I think this is necessary.
2. Slide 13 shows *laterally averaged* data on sedimentation rates. This is not useful- the nearshore sedimentation is significantly different from the channel sedimentation (as shown in Slides 12 and 14 and 15) and I assume most of the contamination is near shore. Since the other slides make this clear, I assume they must have discussed it in their presentation, but we and the remedial agencies should keep an eye on this issue- an area of the river should not be proposed for MNR based on cross-channel averages, but on laterally differentiated data.
3. Slide 27 is weird- since ratios of (positive) concentrations can't be negative, I initially thought the vertical scale was showing logarithms. But for slide 28, logarithms don't seem right because I really don't think they can measure DDx concentrations over 35 orders of magnitude. Basically these slides make a mathematician's brain hurt- the space between -1 and 1 on this chart is misleading since it can't be occupied, and the caption on the vertical scale is wrong for the "negative" values. They need to correct these slides.
4. Slide 33 - Note that the sediment samples used to evaluate temporal trends specifically exclude nearshore data because it could be confounded by nearshore sources. Since we saw in slides 12-15

that sedimentation is significantly different in the nearshore vs the channel, any trends identified with this limited dataset cannot be extrapolated to the nearshore.

5. Slide 44 - It is unclear to me why we are comparing incoming sediment chemistry to bed chemistry *in AOPCs*. Not sure how the term "AOPC" is defined for Portland Harbor. On Duwamish, it specifically means the more heavily contaminated areas (i.e. places where we really should be thinking about active remediation, NOT MNR. In those areas, even if the incoming concentration is lower, the existing bed concentration is hot enough that we need to get it out soon, not wait for natural recovery). If the definition here is different and the whole river is covered by the AOPCs, then great, but then this analysis should focus on those AOPCs where MNR is actually likely to be proposed.
6. Slide 115- Did EPA ask them to include active construction period before running the MNR model? Curious whose idea this was- on Duwamish, EPA instructed them to model MNR during active construction because they were concerned that not doing so would artificially inflate cleanup footprints and costs for the FS. For example, there may be some areas of the river that are currently slightly above cleanup standard concentrations and would merit active cleanup based on current concentrations, but would not be done until 5-10 years down the road, because the hotter spots would be prioritized first, or because of their location in the river. After 10 years of MNR, these areas might no longer need active dredging, so to include them in the FS makes that particular remedial alternative look artificially expensive and therefore less likely to be selected. To be realistic, the model should actually start now, or at the time of the last data point used for bed chemistry, rather than waiting.

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On 1/26/2011 8:31 AM, Humphrey.Chip@epamail.epa.gov wrote:

Attached below is one of the missing pieces from the Dec 14th FS check-in meeting, the LWG's presentation on the MNR evaluation. Will add this & scheduling meeting to the topic list for the TCT this morning.

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----- Forwarded by Chip Humphrey/R10/USEPA/US on
01/26/2011 08:26 AM

MNR Modeling Presentation

Jennifer Woronets

to:

Chip Humphrey

01/25/20

11 07:55

PM

Cc:

"Jennifer Woronets", "Michael Werth", "Carl Stivers", "Keith Pine", "Betz, Jan", "Bob Wyatt", david.ashton, Frederick.wolf, frederickwolf, "Jennifer Woronets", jim.mckenna, karen.traeger, "Madalinski, Kelly", pdost, Rick.Applegate, "Steve Parkinson", aebbetts, ANDERSON.Jim, audiehuber, "Bob Wyatt", "Colin Wagoner ", cunningham, erin.madden, Chip Humphrey, "JD Williams ", "Jennifer Peers", "Jennifer Woronets", jim.mckenna, "Julie Weis", "Keith Pine", Kristine Koch, lisa.bluelake, "Madalinski, Kelly", matt, "MCCLINCY Matt", "Michael Karnosh", Rick.Applegate, "Robert Neely", "Rose Longoria", tzeilman

Chip,

Please see attached MNR Modeling presentation that has been discussed recently. If EPA desires, a small technical group meeting can be scheduled to go over the presentation in the near future. If so, please contact Bob Wyatt or Jim McKenna to coordinate the meeting details.

Please let us know if you have any questions.

Thank you,
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(See attached file: MNR ELOE_20110125.pdf)

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